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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,094	03/19/2004	William S. Sykes	32063.00.0002	7705

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EXAMINER	
KASTLER, SCOTT R	
ART UNIT	**PAPER NUMBER**
1742	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/805,094	SYKES, WILLIAM S.	
	Examiner	Art Unit	
	Scott Kastler	1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 March 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *52-54,56-59,64,66,68,72,76 and 80-87* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *54,72 and 76* is/are allowed.

6)☒ Claim(s) *52,53,56-59,64,66,68 and 80-87* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/23/2007 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 52, 56-59 and 80-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Jenkins and the Little article "OXYGEN-FUEL CUTTING" cited by applicant in the IDS filed on 7/27/2006. Smith teaches a metal cutting apparatus and method of metal cutting including a cutting torch (B), both a preheating mixture of oxygen and combustible gas at any desired pressure (see page 2 lines 70-74 for example) and a source of liquid oxygen for cutting the metal (through line 16), where the liquid oxygen is supplied at between 150 and 220 psi (see the table at page 3 for example, which teaches supplying the cutting oxygen at 174 psi) and including a heater (28) and insulated line (17, 16) which would ensure that the liquid oxygen does not freeze in the hose (16) and regulators (14 and 15) thereby showing all aspects of the above claims except the use of a two part cutting torch tip, although such a tip would be

allowed by the broad disclosure of Smith or the instantly recited cutting torch positioning method. Jenkins teaches that at the time the invention was made, two port tips for cutting torches supplying both oxygen and a combustible gas (see page 1, column 2, lines 43-55 for example) for cutting metal workpieces were known in the art and provide improved cutting properties when compared to other types of cutting tips (see page 1 column 1, lines 45-55 for example). Because improved cutting properties would also be desired by Smith, which allows for the use of any desired type of cutting tip, motivation to employ the improved tip taught by Jenkins, as the cutting tip (B) required by Smith, would have been a modification obvious to one of ordinary skill in the art at the time the invention was made. With respect to the use of particular combustible gases in the above apparatus claims, it has been well settled that the manner or method of use of an apparatus cannot be relied upon to fairly further limit claims to the apparatus itself. See MPEP 2114, 2115. In the instant case the use of any type of gas in the above apparatus claims cannot be relied upon to fairly further limit a claim to the apparatus itself. With respect to the cutting speeds instantly recited, since the cutting speed would also depend on the thickness and type of material being cut, which is not recited or claimed, the method an apparatus described by Smith in view of Jenkins would meet the recited cutting speed for some type and thickness of material and therefore meet the requirements of the above claims. With respect to the specific positioning of the cutting torch, the Little article, at pages 94 and 95 for example, teach that the instantly recited positioning of a cutting torch was a method known at the time the invention was made for effectively cutting or piercing metal workpieces to be cut. It would have been a modification obvious to one of ordinary skill in the art at the time the invention was made

to employ the cutting torch arrangement described by Smith in view of Jenkins in the manner recited by Little in order to ensure a proper cut in the metal workpiece to be cut.

Claims 52, 56-59 and 80-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lotz et al in view of Jenkins and Little. Lotz et al teaches a metal cutting apparatus and method of metal cutting including a cutting torch (5,6), both a preheating mixture of oxygen and combustible gas at any desired pressure(see the embodiment of figure 1 for example) and a source of liquid oxygen for cutting the metal (1), where the liquid oxygen is supplied at between 150 and 220 psi (see the table 1 at col. 3 for example) and including a heater (2) which would ensure that the liquid oxygen does not freeze in the hose and regulators (3, 4) thereby showing all aspects of the above claims thereby showing all aspects of the above claims except the use of a two part cutting torch or the instantly recited cutting torch positioning method. Jenkins teaches that at the time the invention was made, two port tips for cutting torches supplying both oxygen and a combustible gas (see page 1, column 2, lines 43-55 for example) for cutting metal workpieces were known in the art and provide improved cutting properties when compared to other types of cutting tips (see page 1 column 1, lines 45-55 for example). Because improved cutting properties would also be desired by Lotz et al, which allows for the use of any desired type of cutting tip, motivation to employ the improved tip taught by Jenkins, as the cutting tip (5,6) required by Lotz et al, would have been a modification obvious to one of ordinary skill in the art at the time the invention was made. With respect to the use of particular combustible gases in the above apparatus claims, it has been well settled that the manner or method of use of an apparatus cannot be relied upon to fairly further limit claims to the apparatus itself. See MPEP 2114, 2115. In the instant case the use of any type of gas in the above appararus claims cannot be

relied upon to fairly further limit a claim to the apparatus itself. With respect to the cutting speeds instantly recited, since the cutting speed would also depend on the thickness and type of material being cut, which is not recited or claimed, the method an apparatus described by Lotz et al in view of Jenkins would meet the recited cutting speed for some type and thickness of material and therefore meet the requirements of the above claims. With respect to the specific positioning of the cutting torch, the Little article, at pages 94 and 95 for example, teach that the instantly recited positioning of a cutting torch was a method known at the time the invention was made for effectively cutting or piercing metal workpieces to be cut. It would have been a modification obvious to one of ordinary skill in the art at the time the invention was made to employ the cutting torch arrangement described by Lotz in view of Jenkins in the manner recited by Little in order to ensure a proper cut in the metal workpiece to be cut

Claims 52, 56-59 and 80-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Babcock in view of Jenkins and Little. Babcock teaches a metal cutting apparatus and method of metal cutting including a cutting torch (see the embodiments of figures 3 and 4 for example), including both a preheating mixture of oxygen and combustible gas (from lines 34 and 38 example) and a source of liquid oxygen for cutting the metal (through line 32), where the liquid oxygen is supplied through hose 21 and including a heater (19, 20) which would ensure that the liquid oxygen does not freeze in the hose (21) and regulator (17, 18) thereby showing all aspects of the above claims except the use of a two part cutting torch tip or the instantly recited cutting torch positioning steps. Jenkins teaches that at the time the invention was made, two port tips for cutting torches supplying both oxygen and a combustible gas (see page 1, column 2, lines

43-55 for example) for cutting metal workpieces were known in the art and provide improved cutting properties when compared to other types of cutting tips (see page 1 column 1, lines 45-55 for example). Because improved cutting properties would also be desired by Babcock, which allows for the use of any desired type of cutting tip, motivation to employ the improved tip taught by Jenkins, as the cutting tip required by Babcock, would have been a modification obvious to one of ordinary skill in the art at the time the invention was made. With respect to the use of particular combustible gases in the above apparatus claims, it has been well settled that the manner or method of use of an apparatus cannot be relied upon to fairly further limit claims to the apparatus itself. See MPEP 2114, 2115. In the instant case the use of any type of gas in the above apparatus claims cannot be relied upon to fairly further limit a claim to the apparatus itself. With respect to the cutting speeds instantly recited, since the cutting speed would also depend on the thickness and type of material being cut, which is not recited or claimed, the method an apparatus described by Babcock in view of Jenkins would meet the recited cutting speed for some type and thickness of material and therefore meet the requirements of the above claims. With respect to the specific positioning of the cutting torch, the Little article, at pages 94 and 95 for example, teach that the instantly recited positioning of a cutting torch was a method known at the time the invention was made for effectively cutting or piercing metal workpieces to be cut. It would have been a modification obvious to one of ordinary skill in the art at the time the invention was made to employ the cutting torch arrangement described by Babcock in view of Jenkins in the manner recited by Little in order to ensure a proper cut in the metal workpiece to be cut

Claims 52, 53, 56-59, 64, 66, 68 and 80-87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith or Lotz et al in view or Jenkins and Little as applied to claim 52 above, further in view of Oxygen Cutting Operations, Chapter 4. As applied to claim 52 above, either of Smith or Lotz et al in view or Jenkins show all aspects of the above claims except the specific use of either MAPP gas as the combustion gas, although both of Smith (see page 2, lines 70-75) Lotz et al (the heating gas) allow for the use of any desired combustible gas. Oxygen Cutting Operations, Chapter 4 teaches that MAPP gas for use in a two part cutting tip in combination with oxygen was a well known combustion gas and a desirable substitute for acetylene as a cutting gas in metal cutting operations at the time the invention was made. Because neither of Smith or Lotz et al require any specific combustion gas, motivation to employ any equivalent well known combustion gas, including the MAPP gas taught by Oxygen Cutting Operations, Chapter 4, as the combustion, or heating gas required by either of Smith or Lotz et al, would have been a modification obvious to one of ordinary skill in the art at the time the invention was made.

Allowable Subject Matter

Claims 54, 72 and 76 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Kastler whose telephone number is (571) 272-1243. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Scott Kastler
Primary Examiner
Art Unit 1742

sk